CLAIMS

1. A system of medical small bore tubing for multiple different applications, the system in each application comprising connectors between tubing of the system and/or components of the system, wherein said connectors comprise:

a male component having a stub, a first key and a through-bore for the passage of fluid to be transported; and

a female component having a stub, a second key and a through-bore for the passage of fluid to be transported;

said male and female components being adapted to be interconnected in a fluid-tight manner with inter-engagement of said first and second keys, and said stubs being adapted for connection to tubing of the system or components of the system, and at least one of said male and female components having a grip;

wherein, in each application:

c) first and second keys are unique to each application of the system so that they prevent connection of a female component of one application to a male component of another application; and

d) said grip has application affordance unique to the application for which it is intended, which affordance comprises both visual and tactile cues; whereby

misconnections between tubing and components of said different applications of the system are prevented and attempts by users to effect said misconnection are discouraged by said affordance of said grip.

2. A system as claimed in claim 1, wherein said

application affordance comprises shape of the grip that is suggestive of the part of a human body for which the application is intended.

3. A system as claimed in claim 2, wherein a first application is neuraxial, and said shape of the grip is generally cylindrical having a longitudinal spine and encircling ribs suggestive of the human spine and ribs.

4. A system as claimed in claim 2 or 3, wherein a second application is respiratory, and said shape of the grip is generally cylindrical having alternating frusto-conical sections suggestive of a bellows.

5. A system as claimed in claim 2, 3 or 4, wherein a third application is enteral, and said shape of the grip is generally cylindrical with bulges down its length suggestive of the human colon.

6. A system as claimed in any of claims 2 to 5, wherein said visual and tactile cues of the application affordance are provided only by said shape of the grip.

7. A system as claimed in any of claims 11 to, wherein said grip also comprises mechanism affordance unique to the method of interconnection between said male and female components.

8. A system as claimed in claim 7, wherein said method of interconnection comprises a twisting step, said mechanism affordance comprising a wing of said grip.

9. A system as claimed in claim 7 or 8, wherein said method of interconnection comprises a pushing step,

said mechanism affordance comprising a waist of said grip.

10. A system as claimed in claim 7, 8 or 9, wherein said method of interconnection comprises a locking step, said mechanism affordance comprising a button of said grip.

11. A kit of components of a medical small-bore tubing connection system as claimed in any preceding claim, the kit comprising:

a first converter having a through bore, and a standard female connector, a different male connector element and a latching mechanism on the different male connector adapted to engage a flange of a corresponding female connector to which said different male connector is sealingly mateable; and

a second converter having a through bore, and a standard male connector, a different female connector that corresponds with the different male connector of said first converter and a flange adapted for engagement with the latching mechanism of said first converter.

12. A kit as claimed in claim 11, in which said standard connectors are 6% luer connectors.

13. A kit as claimed in claim 11 or 12, in which said different connectors are reduced-diameter 6% conical connectors.

14. A kit as claimed in claim 13, in which said reduced-diameter comprises about 3 mm for the end of the male connector, and about 3.3 mm for the opening of the female connector, and wherein each connector has a

length of about 7.5 mm.

15. A kit as claimed in any of claims 11 to 14, further comprising a syringe, to the standard outlet of which syringe said first converter is permanently secured.

16. A kit as claimed in claim 15, in which said permanent securing is effected by welding or adhering said first converter to such outlet.

17. A kit as claimed in claim 16, in which said welding is ultrasonic welding.

18. A kit as claimed in any of claims 11 to 17, further comprising an hypodermic needle, said needle having said different female connector formed directly thereon.

19. A kit as claimed in any of claims 11 to 18, in which said latching mechanism comprises a threaded collar and said flange comprises thread elements.

20. A kit as claimed in any claim 19, in which the latching mechanism is axially slidable between limits, and is rotatably free, on the first converter.

21. A kit as claimed in any of claims 11 to 20, in which the latching mechanism is visually coded to identify the class of medical applications for which it is intended.

22. A kit as claimed in any of claims 11 to 21, in which the standard male connector of said second converter has an integral latching mechanism formed

thereon adapted to co-operate with flange elements provided on the standard female connector of said first converter to lock said standard male and female connectors together.

23. A kit as claimed in any of claims 11 to 22, in which said different female connector comprises castellations on its face, whereby leak paths are provide between said castellations in the event that a standard male connector is butted against said face.

24. A syringe adapted for connection to the second converter of a kit as claimed in any of claims 11 to 23, the syringe comprising an outlet having a different male connector to a standard male connector and a latching mechanism on the different male connector adapted to engage a flange of a corresponding female connector to which said different male connector is sealingly mateable.

25. A component of medical tubing to which a first and second connector of a kit as claimed in any of claims 11 to 23 has been connected to male and female standard connections of said component.

26. A component as claimed in claim 25, when dependent on claim 22, in which said connections have been rendered permanent by application of adhesive between a latching mechanism on the component and the standard female connector of the first converter and between the latching mechanism of the second converter and the female connector of the component.

27. A component as claimed in claim 25 or 26, which component is a filter, valve or tube junction.

28. A method of introducing into use a new connection system for an existing medical small bore tubing system that employs standard male and female connectors adapted to be sealingly mated together, said method comprising the steps of:

d) providing a kit as claimed in any of claims 11 to 23;

e) permanently connecting the standard female connectors of said first converters to the standard male connectors of components of said existing system; and

f) permanently connecting the standard male connectors of said second converters to the standard female connectors of components of said existing system.

29. A method as claimed in claim 28, in which said permanent connection is by ultrasonic welding.

30. A method as claimed in claim 28, when dependent on claim 22, in which said permanent connection is by adhesion through adhesive disposed between the inside of said latching mechanism and the outside of said standard female connector.

31. An article of a medical small bore tubing system as claimed in any of claims 1 to 10, which article comprises a connector having a male or female component, a stub, a grip, a key and a through-bore for the passage of fluid to be transported, said component being adapted to be connected in a fluid-tight manner with a corresponding component of another connector and with inter-engagement of said key with the key of said other component, and said stub being connected to said

article, wherein said grip has application affordance unique to the application for which the article is intended, which affordance comprises both visual and tactile cues.